SOCIAL SECURITY REFORM AROUND THE WORLD

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This article surveys the development and reform of social security around the world. To do so, it divides the world into six regions: Africa; Asia and the Pacific; the Middle East; Latin America and the Caribbean; Central and Eastern Europe and Central Asia; and the high income countries of the OECD. The article focuses on the issues of extending coverage in low income countries, social security privatization, and reforms to deal with the effects of population aging.

SUMMARY

This article surveys the development and reform of social security around the world. To do so, it divides the world into six regions: Africa; Asia and the Pacific; the Middle East; Latin America and the Caribbean; Central and Eastern Europe and Central Asia; and the high income countries of the OECD. The article focuses on the issues of extending coverage in low income countries, social security privatization, and reforms to deal with the effects of population aging.

The article considers seven ways that mandatory old-age benefits are provided. First, the large majority of countries provide old-age benefits through a defined benefit social security system based on principles of social insurance. Most of the countries of the OECD have such programs. Second, an increasing number of countries provide benefits through a mandatory individual account defined contribution program. A number of countries in Latin America adopted these programs during the 1990s. Third, a number of countries that were formerly British colonies have provident funds. These provident funds are national mandatory savings plans that generally pay benefits in a single payment, known as lump sum benefits. Fourth, notional account plans are a relatively new type of plan, recently adopted by Sweden and Poland, where each worker has an individual account but the accounts are not funded. The return that is credited to each worker's account takes into consideration current and prospective demographic and productivity change. Fifth, some countries give workers the option of contributing to a state-run plan or contributing to a private-sector managed plan. This approach is often called contracting out, and it is used by the United Kingdom, Japan and some countries in Latin America. Sixth, some countries mandate employer-provided pension plans, an approach used by Australia and Switzerland. These mandated plans can be either defined benefit or defined contribution plans, and in Switzerland cash balance plans are commonly used, which are a hybrid

plan combining features of both defined benefit and defined contribution plans. Seventh, some countries have quasi-mandating of employer-provided plans, where the mandate is not a legal requirement imposed by the state but is the result of a contractual agreement between labor unions and employers that covers most workers in the country. The Netherlands and Sweden are examples of this approach. Finally, some countries, such as Sweden and Poland, combine two or sometimes three of these approaches.

Countries provide social security benefits in remarkably diverse ways, reflecting differences in level of development and historical experience. The differences also reflect political philosophies and cultural differences concerning the roles of individual responsibility, family, employers, capital markets, and government. Social security programs are provided by at least 172 countries (US SSA 1999). Social security policymakers are influenced by the successes and failures of other countries they view as being similar.

Because of the diverse ways social security is provided, it is necessary to consider what constitutes such a program. An essential element of social security old-age benefit programs is that they are mandatory, it being generally thought that many workers would not save adequately for retirement on their own.

The diversity of mandatory old-age benefit programs can be seen by examining the major types of programs (Table 1). First, the large majority of countries provide old-age benefits through a defined benefit social security system based on principles of social insurance. Most of the countries of the OECD have such programs. Second, an increasing number of countries provide benefits through a mandatory individual account defined contribution program. A number of countries in Latin America adopted these programs during the 1990s. Third, a number of countries that were formerly British colonies have provident funds. These provident funds are national mandatory savings plans that generally pay benefits in a single payment, known as lump sum benefits. While other types of social security programs generally offer survivors benefits and disability benefits as associated benefits and provide benefits as an annuity, provident funds usually only provide a lump sum retirement benefit. Fourth, notional account plans are a relatively new type of plan, recently adopted by Sweden and Poland, where each worker has an individual account but the accounts are not funded. The return that is credited to each worker's account takes into consideration current and prospective demographic and productivity change. Fifth, some countries give workers the option of contributing to a state-run plan or contributing to a private-sector managed plan. This approach is often called contracting out, and it is used by the United Kingdom, Japan and some countries in Latin America. Sixth, some countries mandate employer-provided pension plans, an approach used by Australia and Switzerland. These mandated plans can be either defined benefit or defined contribution plans, and in Switzerland cash balance plans are commonly used, which are a hybrid plan combining features of both defined benefit and defined contribution plans. Seventh, some countries have quasi-mandating of employer-provided plans, where the mandate is not a legal requirement imposed by the state but is the result of a contractual agreement between labor unions and employers that covers most workers in the country. The Netherlands and Sweden are examples of this approach. Finally, some countries, such as Sweden and Poland, combine two or sometimes three of these approaches.

While this survey could be organized by type of program, as just enumerated, it was decided to organize it by geographic region. Though large differences in features of social security programs are found within each region of the world, there are general similarities as to program type among the countries within the regions. In order to group countries that are somewhat similar in economic and demographic situation as well as type of old-age benefits program, this survey divides the world into five geographic regions--Africa; Asia and the Pacific; the Middle East; Latin America and the Caribbean; Central and Eastern Europe and Central Asia—plus the high income countries of the OECD (Organization for Economic Cooperation and Development).

The OECD countries have as their unifying element that they are the most highly developed economies. The Organization for Economic Cooperation and Development (OECD) facilitates economic cooperation among the countries with the most developed economies. The newest member countries of the OECD-- Czech Republic, Hungary, Poland, Mexico and South Korea-- are included in the discussion of their geographic regions.

The survey has global geographic scope, but of necessity is selective in other respects. While covering a broad range of countries, including numerous small countries, it places greater emphasis on large countries because of their greater importance in the provision of social protection around the world. Because the majority workers around the world lack social security, and this is particularly the case for poor workers and low income countries, for those countries this survey discusses coverage issues. For middle income countries, particular attention is paid to the privatization movement. In the OECD countries, the focus is on polices to insure financial solvency in the face of population aging. In all regions, the diversity of approaches that have been adopted is highhlighted.

Though precise data are unavailable on social security coverage rates around the world, the regions are discussed roughly in the order of the level of coverage of the workforce provided by the social security systems in the region, which is a measure of their development.

Africa

Africa is the poorest region of the world. It has 25 of the world's 35 least developed countries. Half of all Africans are poor. In sub-Saharan Africa, nearly 75 percent of the labor force works outside the formal economy, often in subsistence agriculture. Measured unemployment rates in urban areas are over 20 percent in many countries, with hidden unemployment and underemployment causing the percent of the workforce that is underemployed to be even higher (Gillion, Turner, Bailey and Latulippe 2000). Because of high fertility rates and low life expectancies, Africa has the youngest population of the different regions, and will have a young population for many years. Thus, populating aging is not a problem for social security financing.

AIDS is devastating some countries in sub-Saharan Africa. Of the 34 million people worldwide with AIDS, 24.5 million live in sub-Saharan Africa. It has reduced life expectancy in sub-Saharan Africa by more than a decade. AIDS is the worst in Botswana, Zimbabwe, Namibia, Swaziland and South Africa. In South Africa, 10 percent of the population have AIDS, while in Zimbabwe, 25 percent have AIDS. Because it is mainly people of working age that are dieing from AIDS, it is destroying in some countries the economic base supporting social security.

On average social security programs in Africa cover only 10 percent of workers. Most workers not covered rely on extended families for support when they can no longer work. In Benin, only 5 percent of workers are covered, and though all countries provide retirement benefits for government workers, a handful of countries have no old-age benefit program for workers in the private sector.

Six distinct patterns of social security protection have developed, reflecting in part different colonial traditions and international influences, but also in some countries reflecting the effects of armed conflicts. First, North Africa, where the proximity to Europe was a major influence, has the oldest and most comprehensive programs of social protection, with social security pensions based on social insurance principles operating in Algeria, Egypt, Libya, Morocco and Tunisia since the 1950s. To encourage coverage among agricultural workers, who are typically more difficult to bring into the social security system, Tunisia charges agricultural workers a lower contribution rate than urban workers. To encourage coverage among the self-employed, Egypt allows them to declare their earnings level, with the minimum level varying by occupation.

Second, a number of French-speaking West African countries established a voluntary plan during the colonial period – the West African Retirement Pensions Fund - but did not introduce compulsory programs until after independence, between 1960 and 1965. Given their common heritage and their close collaboration since independence, Côte D'Ivoire, Mali and other countries in the region have similar programs based on defined benefits. Benefits are determined by the worker's length of service and average earnings, with early retirement benefits available at age 50.

Third, in the countries that were British colonies, social security programs are generally more modest than those in French-speaking Africa. Provident funds were established in most of the former British colonies—Gambia, Ghana, Kenya, Nigeria, Seychelles, Swaziland, Tanzania, Uganda and Zambia.

Many of the provident funds have provided low benefits, due to high administrative costs, low or negative rates of return, and the failure to raise earnings ceilings for the programs. Motivated by the failure to provide adequate benefits, many countries have converted them into defined benefit social security systems. The small Seychelles plan was the first, in the late 1970s. The provident fund in Ghana provided low benefits during the 1980s that resulted from negative real rates of return received by the fund. It was converted in 1991. Since then most of the remaining provident funds in Africa have also converted to defined benefit programs. In Nigeria, the failure to increase the ceiling on wages subject to social security mandatory contributions led to low benefits. Nigeria converted in 1994. Both Tanzania and Gambia enacted legislation to convert in 1997. Proposals for conversion have also been considered in Kenya and Uganda.

Fourth, particularly in southern Africa—Botswana, Lesotho, Malawi, Namibia, Swaziland and Zimbabwe--the development of social security pensions was considerably delayed. After many years of debate, the national social security program was established in Zimbabwe in 1990. Initially, the program focused on workers' compensation, but subsequently legislation was passed to establish a social security old-age benefits program. Botswana established a social security program in 1996.

Fifth, some countries do not have a social security program for private sector workers. These countries include Eritrea, Ethiopia, Democratic Republic of the Congo, Lesotho, Sierra Leone, and Somalia. In Sierra Leone, efforts to establish a social security program have been stalled by internal armed conflicts. Internal and external conflict has also delayed the development of social security programs in Eritrea, Ethiopia and Somalia. In Liberia, the Republic of Congo and the Democratic Republic of the Congo, social security programs have been substantially destroyed by armed conflicts.

Six, at the other end of the coverage spectrum, several countries have introduced social security programs emphasizing universality. Entitlement to a basic pension at age 65 in South Africa is based on a means test and the benefits are financed from general taxation. The program in Mauritius provides a basic pension paid to all residents in old age without a means test, supplemented by earnings-related benefits. Seychelles has a similar program. Gabon has made a special effort to extend coverage. In 1983, it developed a social security program for non-salaried workers and the unemployed. This program is separate from the formal sector program and is administered by a separate institution. Botswana has a universal flat-rate pension scheme for all residents aged 65 and older.

Asia and the Pacific

Population aging will affect Asia more than any other region in the next few decades. While Asia accounted for 28 percent of the world's population aged 60 and older in 1985, that percentage will more than double to 58 percent in 2050.

The extended family is fundamental to most Asian societies. Most elderly live with one or more of their children. The traditional Confucian values that emphasize family responsibility for the economic support of elderly people have slowed the development of social security programs. A national social security program was only introduced in South Korea in 1988 and in Thailand in 1998. Because with urbanization and declining fertility rates, families are becoming smaller and more dispersed, increasingly social security benefits supplement traditional family support.

Social security in this region varies considerably in coverage, but generally tends to be less developed than in other parts of the world at comparable levels of economic development. A striking feature of this region is the large number of countries with no mandatory social insurance program. Most of these countries are former British colonies that provide provident funds. Brunei, India, Indonesia, Malaysia, Nepal, Papua New Guinea, Singapore, and Sri Lanka provide old-age benefits through provident funds.

The Employees Provident Fund, by far the largest in India, was introduced in 1952 to cover employees in formal employment. In 1995, India partially converted the Fund into a defined benefit pension plan. In 2000, approximately 50 percent of contributions to it were used to finance a defined benefit annuity payable through the Employees Pension Scheme

Lump sum benefits typically provided by provident funds do not protect against the risk of a retired person outliving his or her income. This problem is increasingly acknowledged among the countries with national provident funds. The Fiji National Provident Fund offers its members a choice between a lump sum benefit and a life annuity. In spite of the annuity being offered on very favorable terms, only about 10 percent of members choose that option. Other countries have recognized that compulsion is necessary. Singapore has decided that members of its Central Provident Fund must set aside a minimum sum in their retirement account at age 55 to finance an annuity benefit.

Countries less exposed to British influence have generally established social insurance pension programs to cover employees. These include countries as diverse as South Korea, Pakistan, the Philippines, and Viet Nam. Pakistan, despite its strong British connections, opted for a social insurance pension program in the 1970s. This choice may reflect the influence of the Arab countries, almost all of which have such programs.

The social security programs in this region usually exclude the self-employed, and often exclude many employees, for example those in enterprises with ten or fewer workers in Indonesia. Expanding coverage is widely regarded as a priority, and in this regard useful experience has been gained by the example of Malaysia, which has extended coverage to all employees regardless of the size of the enterprise employing them.

Extension of social security pension coverage to self-employed workers is perhaps the greatest challenge in the region. The South Korea took this step in 1995 by obliging farmers, fishers and rural self-employed to contribute 3 percent of earnings, a rate which is increased 3 percent every five years until it reaches 9 percent. Most self-employed workers are covered in the Philippines. In Viet Nam, certain groups have, with the guidance of the government, established pension plans for their members. These include both urban informal sector workers who are members of cooperatives and rural workers who are members of the Farmers' Union. In the farmers' program, farmers make an annual contribution of 80 kilos of rice, entitling them to approximately 6 kilos of rice per month when they are eligible to retire.

Several countries in Asia are undergoing structural change in the transition from a command to a market economy. The civil service and state-owned enterprises have accounted for a high proportion of total formal employment in China, the Lao People's Democratic Republic and Viet Nam, but in all those countries economic policy is trying to trim the civil service, reduce the role of state-owned enterprises, and come to grips with the large number of such enterprises that are losing money. In 1993, Viet Nam extended compulsory social security retirement coverage to the private sector, but compliance is low.

From the early 1950s, when social security began in China, to the Cultural Revolution in 1966, the All-China Federation of Trade Unions operated a national social security plan covering state-sector workers in urban areas. Workers in collective sectors in urban areas were also covered but with less generous benefits. During that period, nearly all urban workers worked for the government, for state owned enterprises or in collectives and thus nearly all were covered by social security. From the beginning of Chinese social security policy, however, the government limited its concern to the urban sector. Following the economic collapse caused by the Cultural Revolution, state-owned enterprises individually were responsible for providing retirement benefits for their workers. Gradually, since then pooling networks across enterprises have been reestablished.

The economic changes in China during the 1990s have reduced the effective coverage provided by social security so that it covers considerably less than 50 percent of the workforce. The number of non-state sector employees has increased significantly as economic reform and migration from rural to urban areas have greatly changed the urban workforce. State sector workers were more than 90 percent of the urban workforce in the central planning era but in 2000 were only about 50 percent (Liu and MacKellar 2001). The social security programs do not cover non-state sector workers. Also, most rural elderly are still supported by their families. Hong Kong, which has a separate social security system from the rest of China, in 2000 began a mandatory individual account system where workers and employers both contribute 5 percent of wages into funded individual accounts. It does not provide a rate of return guarantee but maintains a fund to compensate participants for losses due to illegal activities by fund managers.

The Middle East

The Arab countries of the Middle East include some of the world's wealthiest and poorest countries. Birth rates are high--Yemen with 7.6 children per family, Saudi Arabia with 6.4, and Iraq with 5.7. As a result, population aging is not viewed as a problem. With the exception of Yemen, which is poor, all of the countries have fairly high life expectancies, with the life expectancy at birth for females in most countries being 70 or higher, but only 50 in Yemen. In most countries, the social security programs are relatively young—all have been established since 1950.

Given the cultural similarities of the Arab countries of this region, it is not surprising that their social security programs have many similarities. All the programs are traditional social insurance programs. Some of the wealthy countries, such as Kuwait and Saudi Arabia, provide very generous benefits to retirees.

Iraq was a leader in the region in establishing a social security program. It established a provident fund in 1956 and converted that to a social security plan in 1964. By contrast, Oman only started its social security program in 1991. The program in Yemen was also implemented in that year, at the time of the reunification of the country. South Yemen had started a program in 1974, but it varied among the different sultanates. The social security programs of the region are relatively young and have adequate funding to pay current benefits.

While the coverage rates tend to be higher than in Africa and Asia, countries in the region generally do not cover all workers. It is important to distinguish between nationals and non-nationals, since the labor market in this region is characterized by a large number of migrant workers. Bahrain, Oman, Saudi Arabia, and the United Arab Emirates exclude foreign workers from coverage under their social security programs. By contrast, Jordan covers migrant workers on an equal basis with its own citizens.

Some of the countries allow workers to receive retirement benefits at ages that are young by international standards. In Jordan, both men and women can retire at age 46. In Yemen, workers can retire at age 45 with 20 years of contributions, and in Kuwait, women can retire at age 40 with 20 years of contributions. In Lebanon, both men and women can receive benefits at any age with 20 years of contributions. In Bahrain, workers can receive retirement benefits at any age while continuing to work, so long as they have 20 years of contributions. They receive reduced benefits for receipt of benefits before age 60 for men and 55 for women. Some female workers retire as young as 35. Saudi Arabia, Bahrain and Iraq, however, have all set retirement age for men at age 60. In Saudi Arabia, workers failing to meet qualifying conditions for retirement benefits may receive a refund of their contributions.

In Bahrain, Iraq and Kuwait, the minimum retirement age is lower for women than for men, while in Jordan, Saudi Arabia and Syria the minimum is the same for both sexes. In most of the countries, to receive benefits the individual must have ceased working, or at least ceased working in the sectors of work covered by social security.

While most of the countries pay benefits as annuities, Lebanon and Yemen pay benefits as lump sum payments. Most of the countries base benefits on the average of the final two years' earnings, but in Kuwait they are based on the final month and in Lebanon they are based on the final month or the average of the final 12 months, whichever is higher. Kuwait provides benefits equal to 65 percent of the last month's earnings plus 2 percent of the last month's earnings times years of service above 15 years. Thus, someone working 30 years would receive the maximum replacement rate of 95 percent of the last month's earnings. This benefit could be received at age 50 for someone working continuously from age 20. Up to 25 percent of the retirement benefit can be received as a lump sum.

In all the countries of the region except Lebanon, both employer and employee contribute to the financing of social security, with the employer generally contributing a higher amount. In Lebanon, only the employer contributes. In Iraq, oil companies contribute 20 percent, while all other companies contribute 12 percent. These contributions finance employment injury and other benefits as well as retirement benefits. In Oman, the government provides a subsidy to the social security fund equal to 5 percent of total wages. The combination of fairly long life expectancy plus low retirement age makes the social security system in Kuwait expensive. To finance it, the Kuwaiti government provides a subsidy of 10 percent of total wages. In Yemen, by contrast, the government contributes 6 percent for its employees, while all other employers contribute 9 percent.

Because social security in Jordan is fairly young, with few beneficiaries relative to contributing workers, it is building up assets. It first started paying benefits in 1995, and in 1996 it had assets equal to 17 percent of GDP.

Israel provides a defined benefit social security program that provides flat rate benefits, only varying by marital status and number of children. The government pays the entire cost of pensions to new emigrants. Workers earning below half the average wage pay lower social security contributions than do higher wage workers. It also has quasi-mandatory employer-provided pensions that are offered as the result of collective bargaining and that covers most workers.

Latin America and the Caribbean

South American countries were pioneers in the world development of social security. Chile in 1924 became the first country in the Americas (including North America) to adopt a social security old-age benefit program, with Uruguay following in 1928, and Brazil in 1934 (a year earlier than the United States). All of the countries in South America have had social security programs for at least 50 years. By comparison, in 1950 only three African countries and two Asian countries had enacted a social security old-age benefit program (Mesa-Lago 1991). Almost 50 years, however, separate the creation of the first program in South America and the last program in the Caribbean. Trinidad and Tobago established its social security program in 1971, and Antigua and Barbuda established its program in 1972.

At the end of the twentieth century South American countries were again pioneers, this time in the development of individual account plans. Until the reform in Chile in 1981, no country had private administration of a social security pension program. Because of the poor functioning of their social security programs, however, an increasing number of countries have converted to individual account defined contribution programs. After observing the Chilean social security reform for more than a decade, seven other countries in Latin America have introduced individual accounts as part of their social security system. The first countries were Peru (1992) , Colombia (1993), Argentina (1993), Uruguay (1995), and Mexico (1995-1996). These were followed by two of the poor countries in the region, Bolivia (1997) and El Salvador (1998). Nicaragua has also approved a reform scheduled to go into effect in 2001, and Venezuela is likely to implement such a system. These programs provide fully funded individual accounts that are managed by private sector pension fund managers, sometimes with the government also operating a pension fund management company that competes with the private companies to attract workers as clients. The benefits received by the worker depend on the investment returns received on the worker's account.

The countries adopting individual account plans have taken three approaches (Mesa-Lago 1997). First, following Chile, the countries of Bolivia, El Salvador and Mexico have closed their traditional social security system to new entrants and substituted a defined contribution individual account system. All other reformed countries in Latin America have retained their traditional social security system in some form. Second, Argentina and Uruguay have introduced a mixed system, with all workers participating in both a mandatory traditional social security program and a mandatory individual account program. In Uruguay, low-income workers only participate in the traditional social security program. Third, Colombia and Peru have two competing programs, with workers choosing to participate in one.

In all of the countries, adjustments have been made to the initial reforms. Chile in response to the criticism that the system placed too much financial market risk on workers nearing retirement has mandated that each pension fund provider offer a bond fund as well as a mixed portfolio fund.

These systems have been credited with encouraging the development of national stock markets and increasing national savings (Piñera 2001). While some policy analysts thought that converting to a defined contribution program would reduce contribution evasion because benefits would be tied more closely to contributions, contribution evasion remains a problem in these countries, especially among lower paid workers, temporary workers and workers in the informal sector (Bailey and Turner 2001).

To reduce benefit risks to workers, a number of the privatized systems have incorporated guarantees as features of their systems (Turner and Rajnes 2001). In Chile and Argentina, relative rate of return guarantees are provided, so that no pension fund can credit its account holders a rate of return less than a certain amount below the average for all pension funds. In Mexico, workers have a guaranteed minimum benefit provided by the government.

Brazil has an unfunded social security program. This program provides benefits of 100 percent of average salary based on the final three years of work for those who have contributed 35 years (men) or 30 years (women). Because of its generosity, the system operates with a large annual deficit that requires subsidization from government general revenues. Brazil has a special social security program to cover rural workers.

While in Latin America the trend is towards defined contribution systems, in the Caribbean the trend has been away from provident funds established during the British colonial period and towards pay-as-you-go social security programs. The Bahamas, Saint Kitts and Nevis, and Saint Vincent and the Grenadines are among countries that converted a provident fund to a traditional social security program.

Because of the large informal sector in Latin America and the Caribbean, many workers are not covered by social security, either because their type of employment is not covered or because they are covered under the law but they or their employers evade making contributions. Argentina and Uruguay are the only countries with individual account defined contribution plans that have mandated coverage of self-employed workers. Jamaica has compulsory coverage for the self-employed and rural workers but contribution evasion is widespread. Costa Rica has succeeded in expanding coverage among the self-employed, partly by setting contribution rates that are lower than the combined rate for employers and employees.

The military are not covered by the general social security program but are covered by special programs in all countries of the region, except in Costa Rica, which does not have armed forces, and Bolivia, which included its armed forces in social security in 1996. Thus, with the exception of Bolivia, the military are excluded from the new defined contribution systems in Latin America.

Central and Eastern Europe and Central Asia

The countries of Central and Eastern Europe and Central Asia are in the process of converting their economies from a communist approach towards more of a free market approach to organizing economic activity. Countries in the region differ considerably in their levels of economic development. The Czech Republic, Hungary and Slovenia are upper middle income countries, while Albania, Macedonia and Moldova have relatively low incomes.

The social security programs in many of these countries still have features inherited from the systems of the former planned economies, which provided nearly universal coverage during the Communist era and consisted of social security pensions, short-term cash benefits and health care. These countries provided added economic security through guaranteed employment, the provision of low-cost housing and heavily subsidized basic goods and services. Also, state enterprises provided cash and in-kind benefits for retirees and their families, including subsidized recreational facilities and vacations and subsidized loans. This region has the highest social security payroll taxes, averaging more than 20 percent. These high rates are the result of generous benefits and a high ratio of retirees to covered workers (Palacios and Pallarès-Miralles 2000).

Social security pensions for the elderly that were part of the social protection systems in the former centrally planned economies of this region were designed to work in a different economic and social environment than the one that emerged in the 1990s. First, in the Communist era with high public sector employment and collectivized agriculture coverage was high, but with the development of private sector enterprises coverage has declined. The shift to a market economy has reduced the number of covered workers, while raising the number of retirees. Second, in the past few countries had high inflation, and thus no automatic provisions for indexing benefits. After 1990, nearly all of the countries had high and persistent inflation. To prevent benefits from deteriorating in purchasing power, adjustments were made, many of them being a fixed amount increase that was the same for all pensioners. Such adjustments have reduced the difference between minimum and maximum pensions from a factor of three to a factor of two in Bulgaria. In Latvia and Lithuania, earnings-related pensions degenerated into flat-rate pension schemes with most workers receiving the basically the same amount, due to the effect of flat amount benefit adjustments to high inflation rates.

Third the social security programs were designed for an economy with moderate differences in earnings. Earnings differences have increased dramatically in all countries in the region. Widening differences in earnings, coupled with reduced differences in maximum and minimum benefits are a source of dissatisfaction among higher earning workers.

Social pensions for elderly who do not otherwise qualify for a pension are paid in most countries five years after the normal retirement age. Social and minimum pensions were linked to the minimum wage under the old system. This link has been severed in Bulgaria, Russia and the Ukraine. In some countries, minimum wages have been held at a low level, leading to the inequitable situation that minimum pensions are higher than minimum wages in Russia.

In many of the countries, disability pensions are used as a way of taking early retirement. In Poland, disability pensioners are nearly 40 percent of all pensioners, while in Croatia, Hungary, Macedonia and Slovakia they exceed 20 percent of the total.

In many of the countries, the social security system provides moderate or low replacement rates in spite of pension systems that formerly were generous. The low replacement rates are the outcome of the absence of automatic pension adjustments for inflation and the limitations on maximum pension amounts. In Russia and other countries of the former Soviet Union, replacement rates are 40 percent or less. In Tajikistan, the social security system has failed to pay benefits for periods of months due to financial turmoil in the country, caused partly by internal armed conflicts and partly by the difficult financial adjustment following the dissolution of the Soviet Union.

The benefits provided by existing and newly created social protection systems are not sufficient to handle the economic problems facing retirees in the region. Many of these countries are rethinking their social security programs, with some adopting defined contribution programs. Social security pensions have been supplemented by voluntary employer-provided pensions in the Czech Republic and Hungary. Comprehensive reforms of social security have been implemented in the Croatia, the Czech Republic, Hungary, Latvia, and Poland. These programs are just being started and it is too early to evaluate their performance. All other countries in the region have debated reforms for several years.

Several countries have increased their retirement age as a move towards insuring the solvency of their social security systems. Those countries include Bulgaria, Croatia, the Czech Republic, Estonia, Latvia, Hungary, and Poland.

Croatia has introduced a mandatory fully-funded tier. Both Poland and Latvia have established mandatory pay-as-you-go defined contribution plans, called notional plans, as the first tier of their retirement income systems and mandatory funded defined contribution plans as the second tier. Latvia is the first country in the world to implement a notional account system. In Latvia, the worker's individual account balance is credited with a rate of return equal to the growth rate of the national taxable wage base. In 1998, Hungary established an individual account system, maintaining a defined benefit system as the primary system. Kazakhstan, an oil-rich former Soviet republic, reformed its social security system in 1997 by requiring workers to place 10 percent of their wages into privately-managed individual retirement accounts, phasing out its defined benefit social security system. Poland, one of the most economically successful of the former communist countries, introduced a pension reform in 1999 where all new workers participate in a notional account system and a funded individual account. Croatia will introduce a funded individual account system in 2001 (Fox and Palmer 2001). Macedonia, Romania and Russia are also planning to introduce funded individual accounts (Piñera 2001).

The OECD Countries

The OECD countries have the oldest age structures, which is a factor motivating their social security reform. In many of the countries, their populations will grow dramatically older over the next couple of decades due to low fertility rates, lengthening life expectancy, and the bulge in births following World War II.

The first social security retirement benefit programs in OECD countries originated at the end of the nineteenth century. By the beginning of the twentieth century, Australia, Belgium, France, Germany and New Zealand had programs.

Most of the social security programs are defined benefit. Some countries, however, have incorporated a defined contribution element into their mandatory benefits. The mandatory employer-provided plans in Australia are primarily defined contribution plans. In the United Kingdom, workers are permitted to contract out of (not contribute to) the earnings-related part of social security and replace that with an individual account defined contribution plan. Italy and Sweden have started new programs that are pay-as-you-go defined contribution plans, called notional account plans. Sweden replaced its defined benefit social security program with a notional account, supplemented by mandatory funded individual account plans, with workers choosing private funds to manage the individual accounts starting in 2000. An innovation in this reform that directly deals with the effect of increasing life expectancy raising benefit costs is that life expectancy increases reduce the monthly benefits provided from the notional account plan.

Social security benefits through defined benefit programs can be provided as flat rate benefits, earnings-related benefits, or a combination of both. Ireland's social security program provides a flat-rate benefit that is not related to earnings. This is also done in Iceland, the Netherlands, and Norway. In all these countries, the benefit is paid to people with work experience. Canada, Denmark, Japan, and the Netherlands provide a universal pension that is not based on having worked. Australia only provides means-tested social security benefits. It does not provide an earnings-related social security benefit, but instead has mandated employer-provided pensions.

The English speaking countries of Australia, Canada, Ireland, New Zealand, the United Kingdom and the United States all have social security systems that provide low or moderate replacement rates. The average income replacement rate in Canada and the United States is about 40 percent. Italy, Portugal and Spain provide replacement rates exceeding 75 percent, while Austria and Iceland have rates in the vicinity of 90 percent.

Most OECD countries finance retirement benefits on a pay-as-you-go basis. Canada, Denmark, Japan, and the United States, however, currently have partial funding of social security, although in the United States the retirement of the baby boom generation is projected to completely deplete the fund. In Japan, the national social security funds can be invested in the private sector. Between fiscal years 1993 and 1996, because of declines in Japanese capital markets, the social security trust fund lost 1.4 trillion yen-- 6 percent of its value.

Most OECD countries have made changes in their social security programs to ensure financial viability of the systems in the face of population aging. First, many of them have legislated increases in the age for early or normal retirement in social security in an attempt to reduce benefits and encourage workers to retire at a later age. One way to cut benefits is to postpone access to full benefits to a later age, coupled with actuarial reductions in benefits received at an earlier age. This approach has been used by Germany, Italy, Japan, Switzerland and the United States.

Second, several countries have raised the age of early retirement for women to bring it nearer to or to equal that of men. These countries include Greece, Portugal, Switzerland and the United Kingdom. Third, some countries have raised the earliest age at which both sexes can receive benefits. These countries include Italy and Germany.

Fourth, a number of countries have reduced benefits by increasing the years used in the earnings averaging period. Spain has increased the number of years of earnings that must be used in calculating retirement benefits for workers. This change results in more years of relatively low earnings being included, lowering average earnings in the benefit calculation. Finland has also increased the number of years of earnings for calculating its mandatory pension. Austria, France, Italy and the United Kingdom have also increased the number of years used in benefit calculation. In the case of Italy, the increase was from the worker's last five years of earnings to lifetime earnings.

Fifth, the United Kingdom has reduced future benefits by indexing by prices rather than wages the ceiling on earnings used for calculating benefits. Prices grow more slowly than wages over long periods. The United Kingdom has cut future benefits to low levels but may face a relatively large reliance on public assistance pensions in the future. Sixth, Japan has cut future benefits by reducing the benefit accrual rate in the benefit formula.

Seventh, Germany has switched from basing benefits on gross wages to basing them on net wages. Future increases in social security contribution rates will cause net wages to grow more slowly than gross wages. Eighth, the Netherlands replaced the survivors' insurance benefits with a new program that provides lower benefits and stricter eligibility requirements. The government's rationale for these changes is that private life insurance is widely available.

Ninth, benefits can be reduced by changing the calculation of cost-of-living adjustments. Germany and Japan have both moved from basing post-retirement benefit adjustments on the growth of net wages rather than gross wages. With the growth of taxes and social security contribution rates, net wages grow less rapidly.

Tenth, benefits have also been reduced in some countries, sometimes with the cuts made through taxes targeted towards middle and upper income workers. Net (after-tax) benefit reductions for upper income households have been introduced in Australia, Canada, Finland, Iceland, the Netherlands, New Zealand, and the United States. Canada introduced a "clawback" of benefits paid to upper income recipients in 1989, through the income taxation of benefits for high-income earners.

As well as reducing benefits, contribution rates have been increased in many countries, including Denmark, Finland, France, and Sweden. In nearly all OECD countries, contribution rates are scheduled to increase in the future. Belgium and the United Kingdom are exceptions, both planning to reduce their contribution rates in the future. For Belgium, the reductions are designed to bring its rate in line with those of its neighbors. France, in addition to raising the contribution rate, increased the contribution base to include employer contributions to occupational pension plans. Countries that have in the post World War II era completely eliminated the ceiling on taxable earnings include Finland, Norway, Portugal and Sweden. In Japan, where twice-yearly bonuses are an important part of compensation for many workers at large firms, starting in 1995 those bonuses are subject to a social security tax of one percent.

Using a broad definition of privatization that includes mandatory occupational pensions, nearly a third of the OECD countries discussed in this section have partially privatized their social security. They have done this by making employer-provided pensions mandatory (seven countries), by allowing for contracting out from the social security system (two countries), or by mandating individual accounts (one country). The essential aspects of privatized systems are that they are managed in the private sector, and that they are either mandatory or they replace part of mandatory social security. Countries with private pensions mandated by law include Australia, France and Switzerland. In Denmark, Finland, Netherlands and Sweden, private pension coverage is mandatory for most workers due to labor agreements. In France, these pensions are financed on a pay-as-you-go basis, while in the other countries they are funded. Contracting out is a form of voluntary privatization, whereby workers have a reduction of their social security contribution in exchange for participating in a funded employer-provided plan, is permitted in Japan and the United Kingdom, where contracting out to individual account plans is also permitted.

Individual accounts are mandatory in Sweden, with a contribution of 2.5 percent of salary. Initially, the funds were invested in a general pool run by the government. Starting in 2000, Swedish workers were allowed to choose from 460 different pension funds to manage their pension investments, with the default fund being a government-run fund.

Conclusions

This survey has indicated a great diversity in social security arrangements, reflecting diversity in levels of development, historical experience, and philosophy concerning the role of the public and private sectors in providing retirement income. While there are some distinctive characteristics of the social security systems in particular regions of the world, within each region there are also considerable differences. In all regions, social security systems are being reformed to adjust to changing economic circumstances and to the aging of populations.

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Table 1. Types of Mandatory Old-Age Benefit Programs

Type of Program	Type of Plan	Funding Arrangement	System Management	Countries
Social Security	DB	PAYG or partial funding	Public	Canada, Germany, most OECD
Individual Account	DC	Funded	Private	Chile, much of Latin America
Provident Fund	DC	Funded	Public	India, Kenya
Notional Account	DC	Unfunded	Public	Poland, Sweden
Contracting Out	DB or DC	Funded	Private	Colombia, Japan
Mandatory Employer-provided	DB, DC or cash balance	Funded	Private	Australia. Switzerland
Quasi-mandatory (required by labor contract)	DB or DC	Funded, Unfunded (France)	Private	Netherlands, Sweden

Note: DB=defined benefit, DC=defined contribution, PAYG=pay-as-you-go